

**REMARKS**

Claims 25-47 are pending upon entry of the amendments. Claim 25 has been amended to clarify a distinction over the cited art. Claims 26 and 27 have been amended for clarity. Claims 1-10, 12, 13, 23 and 24 have been cancelled without prejudice. Claims 33-47 have been added to further describe certain aspects of the invention. Kindly enter these amendments. Favorable reconsideration in light of the amendments, the new claims, and the remarks which follow is respectfully requested

**I. Objection to Claim 25**

Claims 25 stands objected to because of a minor informality. Specifically, the Final Office Action indicates that "[i]t is not clear from the claim language how the feedstock contacts an oxide of a metal: (1) during contact with the nickel adsorbent; (2) before contact with the nickel adsorbent, or (3) after contact with the nickel adsorbent." Although applicants' representative respectfully disagrees. Claim 25 clearly recites that that the feedstock contacts the oxide of the metal during contact with the nickel adsorbent. Claim 25 recites, "contacting the feedstock . . . with a sulfided nickel adsorbent . . . ; and contacting the feedstock with an oxide of a metal . . ." The plain language of the claim indicates that feedstock is contacted with both the nickel adsorbent and the oxide of the metal at the same time. Additionally, when the claim is read in light of paragraphs [0024]-[0026] of the specification, it is clear that the feedstock contacts the oxide of the metal during contact with the nickel adsorbent. However, to advance prosecution, claim 25 has been amended to clarify that the feedstock contacts the oxide of the metal during contact with the nickel adsorbent. Specifically, as amended, claim 25 now recites, "contacting the feedstock with an oxide of a metal . . . while contacting the feedstock with the nickel adsorbent." Therefore, it is respectfully requested that this objection be withdrawn.

## II. Objection to Claim 27

Additionally, claim 27 also stands objected to for a minor informality. Specifically, the Final Office Action indicates that “an S-compound sulfur compound” should be reworded. Accordingly, claim 27 has been amended, rewording “an S-compound sulfur compound” to “an S-compound ~~sulfur compound~~.” Therefore, it is respectfully requested that this objection be withdrawn.

## III. First Obviousness Rejection

Claims 1-10, 12, 13, 23-25, 31 and 32 stand rejected under 35 U.S.C. §103(a) over Winsor, *et al* (GB 1,144,498, hereinafter Winsor) and Kimber, *et al* (US 5,059,539, hereinafter Kimber). Claims 1-10, 12, 13, 23 and 24 have been cancelled, rendering this rejection moot. Accordingly, claims 25, 31 and 32 stand rejected under 35 U.S.C. §103(a) over Winsor and Kimber.

Independent claim 25 recites in part, “**contacting the feedstock with an oxide of a metal** that forms stable sulfides under the conditions applied in the process for the removal of contaminating sulfur compounds using the sulfided nickel adsorbent from the hydrocarbon feedstock **while contacting the feedstock with the nickel adsorbent**.” Winsor, which relates to a process for desulfurization of an aromatic hydrocarbon-containing fraction, and Kimber, which relates to a method of testing a heterogeneous or homogeneous catalyst, taken alone or in combination, fail to disclose, teach or suggest at least this feature as recited in independent claim 25.

Citing Winsor p. 2, lines 30-45, the Final Office Action, at pp. 8-9, admits that Winsor describes, “contacting the feedstock with cobalt and molybdenum oxides for the removal of contaminating sulfur compounds before using the sulfided nickel adsorbent from the hydrocarbon feedstock.” However, unlike claim 25, which requires the oxide of a metal to contact a feedstock **while contacting the feedstock with the nickel adsorbent**, Winsor requires the cobalt and molybdenum oxides to be used **before** feedstock is desulfurized. Specifically, Winsor describes at p. 2, lines 30-38:

If desired feedstocks containing large amounts of sulfur may be subjected to any of the known catalytic hydrodesulphurization processes before being desulphurized by the present process. Such known processes should employ catalysts of poor hydrogenation activity, for example cobalt and molybdenum oxides on alumina.

Winsor merely describes a pretreatment process using a metal oxide. In the other hand, independent claim 25 recites contacting the feedstock with a metal oxide while contacting the feedstock with the nickel adsorbent rather than pretreatment. This provides at least the advantage of more reliable sulfur removal (see Spec. at paragraph [0026]) when compared to other processes (e.g., the process described by Winsor). Therefore, Winsor fails to disclose, teach or suggest at least this feature as recited in independent claim 25.

Kimber fails to remedy the aforementioned deficiencies of Winsor. Instead, Kimber merely describes a method for testing the activity of a catalyst in which naphthalene is reversibly hydrogenated. See, e.g., Abstract. Kimber clearly fails to disclose, teach or suggest contacting a feedstock with a metal oxide while contacting the feedstock with a nickel adsorbent because Kimber is silent with regard to at least this feature.

For at least the above reasons, Winsor and Kimber, taken alone or in combination, fail to disclose, teach or suggest at least, "contacting the feedstock with an oxide of a metal that forms stable sulfides under the conditions applied in the process for the removal of contaminating sulfur compounds using the sulfided nickel adsorbent from the hydrocarbon feedstock while contacting the feedstock with the nickel adsorbent" as recited in independent claim 25. As such, Winsor and Kimber fail to render independent claim 25, as well as associated dependent claims 31 and 32, obvious. As such, it is respectfully requested that this rejection be withdrawn and claims 25, 31 and 32 allowed.

#### **IV. Second Obviousness Rejection**

Claims 26-30 stand rejected under 35 U.S.C. §103(a) over Winsor, Kimber and Bouwman, *et al* (US 5,223,470, hereinafter Bouwman). Claims 26-30 depend from independent claim 25. At least for the reasons as described above, Winsor and Kimber, taken alone or in combination, fail render independent claim 25 obvious. Bouwman, which describes a nickel on alumina catalyst that has been promoted with sulfur, does not remedy the deficiencies of Winsor and Kimber. Specifically, Bouwman does not teach or suggest at least, "contacting the feedstock with an oxide of a metal that forms stable sulfides under the conditions applied in the process for the removal of contaminating sulfur compounds using the sulfided nickel adsorbent from the hydrocarbon feedstock while contacting the feedstock with the nickel adsorbent" as recited in independent claim 25. Accordingly, for at least these reasons, Winsor, Kimber and Bouwman, taken alone or in combination, do not disclose, teach or suggest at least the above feature as recited in independent claim 25. At least by virtue of dependence, Winsor, Kimber and Bouwman, taken alone or in combination, do not disclose, teach or suggest each and every feature as recited in associated dependent claims 26-30. Therefore, Winsor, Kimber and Bouwman, taken alone or in combination, do not render claims 26-30. Accordingly, it is respectfully requested that this rejection be withdrawn and claims 26-30 allowed.

#### **V. New Claims**

New claims 33-47 have been added herein. Claims 33-47 depend from independent claim 25, and are allowable for at least the reasons as described above with respect to independent claim 25. Therefore, it is respectfully requested that new claims 33-47 be entered and allowed.

#### **VI. Petition for Extension of Time**

A request for a one month extension of time is hereby made. Payment is being made through the EFS electronic filing system.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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